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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,468	02/19/2002	Christopher M. Fender	399483	6678

30955 7590 06/17/2005

LATHROP & GAGE LC
4845 PEARL EAST CIRCLE
SUITE 300
BOULDER, CO 80301

EXAMINER

LY, CHEYNE D

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/079,468	Applicant(s) FENDER ET AL.	
	Examiner Cheyne D. Ly	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 and 21-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-13 and 20 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' arguments filed March 29, 2005 have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.
2. The withdrawal of claims 14-19 and 21-34 has been acknowledged.
3. Claims 1-13 and 20 are examined on the merits.
4. NON-FINAL OFFICE ACTION.

CLAIM REJECTIONS - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6, 10-13, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Qiu et al. (1999).
7. Qiu et al. discloses a method for determining soybean cyst nematode resistance (SCN) comprising the use of a near-infrared (NIR) spectroscopy for determining the percentage of protein and oil from seeds (page 358, column 1, Seed protein and oil evaluation section), as in instant claim 1, (a).

8. The method is directed to the analysis of RFLP markers associated with loci controlling resistance to SCN (known genotypes) and seed composition (Abstract etc.). Markers located near these QTLs would be used to select for new SCN resistance and higher levels of seed protein and oil concentrations (comparing assay spectra) in breeding improves soybean cultivars (predict) (page 356, column 2, lines 7-14). The comparison results are provided in Table 1 and Figures 2 A, as in instant claim 1, (b) and (c).

9. Qiu et al. discloses a method for determining soybean cyst nematode resistance (SCN) comprising the use of a near-infrared (NIR) spectroscopy for determining the percentage of protein and oil from seeds (page 358, column 1, Seed protein and oil evaluation section), as in instant claims 2, 3, 10, 11, and 13.

10. The comparison results are provided in Table 1 and Figures 2 A, as in instant claim 4.

11. The method comprises two-way regression analysis (SAS 1990) to detect the association between RFLP and loci controlling resistance to SCN (page 358, column 2, Data Analysis section and Figure 2A), which has been reasonably construed as “a discriminant analysis”, as in instant claims 5 and 6.

12. The above citation describes the limitations of claim 12, (a) and (d). Further, Table 1 discloses the mean and standard deviation (SD) of SCN scores (transforming the IR data into

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a predictive model) and soybean protein and oil concentrations in parents and their F2:3 individuals (page 358), as in instant claim 12, (b) and (c).

13. The method further comprises SAS and MAPMAKER/EXP 3.0 software for the data transformation (page 358, column 2, Data Analysis section and Figure 2A), as in instant claim 20.

CONCLUSION

14. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547. The USPTO's official fax number is (571) 273-8300.

16. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic

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The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

17. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph.D., can be reached on (571) 272-0718.

C. Dune Ly / *CDL*
6/9/05

Ardin H. Marschel 6/12/05
ARDIN H. MARSCHEL
SUPERVISORY PATENT EXAMINER